

SEPARATING PLATE FOR FUEL CELL

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Abstract

PURPOSE: To provide a separating plate for a fuel cell having no dimension change during operation, no permeability, good electroconductivity, and chemical resistance by impregnating liquid resin binder in expansion graphite moldings, and drying, and preliminarily curing, the then hot-press molding.

CONSTITUTION: Expansion graphite powder having a bulk density of 0.001- 0.02g/cm³, preferably 0.001- 0.005g/cm³ is used. The expansion graphite powder is press-molded with a press or roll to form plate or bipolar moldings with grooves having a bulk density of 0.1-1.2g/cm³, preferably 0.3-0.8g/cm³. This molding is immersed in a liquid resin bath having a solid content of 10wt% for from several minutes to 10hr, and dried at 80-100 deg.C to remove solvent. The resin to be used is selected from phenol resin, melamine resin, melamine modified phenol resin, epoxy resin, and furan resin. Then the impregnated moldings is preliminary cured at 100-180 deg.C for 30-120min. Thereby, generation of scabs caused by gas evolved in hot-press moldings is prevented.

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